The second medium which is of great advantage in the analyses is broth with sodium taurocholate. The broth is ordinary nutrient beef broth, to which sodium taurocholate is added in the same proportion as phenol in Parietti broth, that is, 5 c.cm. of a 5 per cent. solution to 400 c.cm. of broth.

B. coli as also *B. typhosus* grow well in this taurocholate broth, making it uniformly turbid in twenty-four hours at 37° C.; but if *B. coli communis* be present, on slightly shaking the tube copious evolution of minute gas bubbles will be noticed on inspection with a hand lens. In a large number of tests made with this medium I have invariably found that if after twenty-four to forty-eight hours' incubation the tubes show marked turbidity, and on slight shaking show copious evolution of gas bubbles, one can be certain that *B. coli communis* is present. This taurocholate broth has one further advantage, it is this: while it allows the growth of faecal streptococci it inhibits some other streptococci. I have made experiments with streptococcus directly isolated from human faecal matter by Drigalski-Conradi plates, with streptococcus of saliva and with *Streptococcus pyogenes*, and I have found that while the streptococcus of human faeces grows well in the taurocholate broth—at 37° C. it produces in forty-eight hours copious growth in the form of granules and flocculi with slight general turbidity of the broth—the others (streptococcus of saliva, *Streptococcus pyogenes*) produce no growth, the broth remaining perfectly clear.

The *B. coli communis* forms indol in the taurocholate broth just as in ordinary broth.

NOTE ON THE ESTIMATION OF BLOOD PRESSURE.

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In estimating the systolic blood pressure by one of the modified methods of Riva-Rocci,¹ it is often difficult to state definitely by palpation the exact instant when the pulse returns at the wrist. Moreover, the blood forces its way through the block on the brachial artery at a pressure slightly below the pressure in the armlet, and in insufficient quantity to produce a definite pulsation in the radial vessel. Estimations are consequently, as a rule, slightly lower than they should be. The difficulty can be overcome by fixing a Dudgeon's sphygmograph upon the radial vessel. When the pressure in the armlet is above systolic pressure, no pulse beats are shown, and the writing point rides below the bottom of the pulse beats (Fig. 4). As the pressure falls in the armlet, the line described gradually rises (as shown in the three steps, a, a, a, of Fig. 4), but pulsation does not appear until a lower armlet pressure is reached. In the figure a control beat is shown, in a patient whose systolic blood pressure was 160 mm. Hg, with the armlet at 0 mm. Hg. The armlet was then raised to 200 mm. Hg, and the pressure allowed to gradually fall to 160 mm. Hg, when the point of the writing lever rose on the paper; this was allowed to proceed in 3 steps, a, a, a, and the pressure was then reduced to 0 mm. Hg, and further control beats were taken. The method is a very accurate one for estimating blood pressures in doubtful cases.

The combined use of the sphygmomanometer and sphygmograph is also of service in demonstrating temporary rises of blood pressure. Some examples of this are given. Fig. 1 shows the rise of pressure occurring at the height of three deep inspirations.² The beats force the block in the armlet at these three points only, the pressure in the armlet being a few millimetres of Hg higher than the original systolic blood pressure.

Fig. 2 shows the two rises of blood pressure in Valsalva's experiment, when a deep inspiration is followed by expiration with the glottis closed.³

Fig. 3 shows a rise of blood pressure consequent upon excitement.⁴ This tracing was obtained accidentally during the course of certain observations upon Valsalva's experiment. The most convenient instrument for obtaining these records is C. J. Martin's modification of the Riva-Rocci instrument.⁵

Fig. 1.

Fig. 2.

Blood Pressure 135
Riva-Rocci at 138

Rise due to excitement.

Fig. 3.

Fig. 4.

REFERENCES.

- ¹ Riva-Rocci, *Gaz. Med. di Torino*, 1899. ² Cf. Wertheimer et Meyer, *Archives de Physiol.*, Paris, 1889. ³ Cf. Lewis, *Journal of Physiol.*, 1906. ⁴ Cf. Janeway, New York and London, 1904, p. 119. ⁵ Supplied by Hawksley, London.